

Preaward Compliance Review Report for All Applicants and Recipients Requesting EPA Financial Assistance

Note: Read Instructions before completing form.

I. A. Applicant/Recipient (Name, Address, City, State, Zip Code)

Name:

Address:

City:

State: Zip Code:

B. DUNS No.

II. Is the applicant currently receiving EPA Assistance? ☐ Yes ☒ No

III. List all civil rights lawsuits and administrative complaints pending against the applicant/recipient that allege discrimination based on race, color, national origin, sex, age, or disability. (Do not include employment complaints not covered by 40 C.F.R. Parts 5 and 7.)

IV. List all civil rights lawsuits and administrative complaints decided against the applicant/recipient within the last year that allege discrimination based on race, color, national origin, sex, age, or disability and enclose a copy of all decisions. Please describe all corrective actions taken. (Do not include employment complaints not covered by 40 C.F.R. Parts 5 and 7.)

V. List all civil rights compliance reviews of the applicant/recipient conducted by any agency within the last two years and enclose a copy of the review and any decisions, orders, or agreements based on the review. Please describe any corrective action taken. (40 C.F.R. § 7.80(c)(3))

VI. Is the applicant requesting EPA assistance for new construction? If no, proceed to VII; if yes, answer (a) and/or (b) below.

☐ Yes ☒ No

a. If the grant is for new construction, will all new facilities or alterations to existing facilities be designed and constructed to be readily accessible to and usable by persons with disabilities? If yes, proceed to VII; if no, proceed to VI(b).

☐ Yes ☐ No

b. If the grant is for new construction and the new facilities or alterations to existing facilities will not be readily accessible to and usable by persons with disabilities, explain how a regulatory exception (40 C.F.R. 7.70) applies.

VII. Does the applicant/recipient provide initial and continuing notice that it does not discriminate on the basis of race, color, national origin, sex, age, or disability in its program or activities? (40 C.F.R. 5.140 and 7.95)

☒ Yes ☐ No

a. Do the methods of notice accommodate those with impaired vision or hearing?

☒ Yes ☐ No

b. Is the notice posted in a prominent place in the applicant's offices or facilities or, for education programs and activities, in appropriate periodicals and other written communications?

☒ Yes ☐ No

c. Does the notice identify a designated civil rights coordinator?

☒ Yes ☐ No

VIII. Does the applicant/recipient maintain demographic data on the race, color, national origin, sex, age, or handicap of the population it serves? (40 C.F.R. 7.85(a))

☒ Yes ☐ No

IX. Does the applicant/recipient have a policy/procedure for providing access to services for persons with limited English proficiency? (40 C.F.R. Part 7, E.O. 13166)

☒ Yes ☐ No

- X. If the applicant is an education program or activity, or has 15 or more employees, has it designated an employee to coordinate its compliance with 40 C.F.R. Parts 5 and 7? Provide the name, title, position, mailing address, e-mail address, fax number, and telephone number of the designated coordinator.

--

- XI. If the applicant is an education program or activity, or has 15 or more employees, has it adopted grievance procedures that assure the prompt and fair resolution of complaints that allege a violation of 40 C.F.R. Parts 5 and 7? Provide a legal citation or Internet Address for, or a copy of, the procedures.

--

For the Applicant/Recipient

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law. I assure that I will fully comply with all applicable civil rights statutes and EPA regulations.

A. Signature of Authorized Official

Kristen Nelson

B. Title of Authorized Official

Authorized Business Official

C. Date

03/25/2022

For the U.S. Environmental Protection Agency

I have reviewed the information provided by the applicant/recipient and hereby certify that the applicant/recipient has submitted all preaward compliance information required by 40 C.F.R. Parts 5 and 7; that based on the information submitted, this application satisfies the preaward provisions of 40 C.F.R. Parts 5 and 7; and that the applicant has given assurance that it will fully comply with all applicable civil rights statutes and EPA regulations.

A. *Signature of Authorized EPA Official

B. Title of Authorized Official

C. Date

*** See Instructions**

Instructions for EPA FORM 4700-4 (Rev. 06/2014)

General. Recipients of Federal financial assistance from the U.S. Environmental Protection Agency must comply with the following statutes and regulations.

Title VI of the Civil Rights Acts of 1964 provides that no person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. The Act goes on to explain that the statute shall not be construed to authorize action with respect to any employment practice of any employer, employment agency, or labor organization (except where the primary objective of the Federal financial assistance is to provide employment). Section 13 of the 1972 Amendments to the Federal Water Pollution Control Act provides that no person in the United States shall on the ground of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under the Federal Water Pollution Control Act, as amended. Employment discrimination on the basis of sex is prohibited in all such programs or activities. Section 504 of the Rehabilitation Act of 1973 provides that no otherwise qualified individual with a disability in the United States shall solely by reason of disability be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. Employment discrimination on the basis of disability is prohibited in all such programs or activities. The Age Discrimination Act of 1975 provides that no person on the basis of age shall be excluded from participation under any program or activity receiving Federal financial assistance. Employment discrimination is not covered. Age discrimination in employment is prohibited by the Age Discrimination in Employment Act administered by the Equal Employment Opportunity Commission. Title IX of the Education Amendments of 1972 provides that no person in the United States on the basis of sex shall be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance. Employment discrimination on the basis of sex is prohibited in all such education programs or activities. Note: an education program or activity is not limited to only those conducted by a formal institution. 40 C.F.R. Part 5 implements Title IX of the Education Amendments of 1972. 40 C.F.R. Part 7 implements Title VI of the Civil Rights Act of 1964, Section 13 of the 1972 Amendments to the Federal Water Pollution Control Act, and Section 504 of The Rehabilitation Act of 1973. The Executive Order 13166 (E.O. 13166) entitled; "Improving Access to Services for Persons with Limited English Proficiency" requires Federal agencies work to ensure that recipients of Federal financial assistance provide meaningful access to their LEP applicants and beneficiaries.

Items "Applicant" means any entity that files an application or unsolicited proposal or otherwise requests EPA assistance. 40 C.F.R. §§ 5.105, 7.25. "Recipient" means any entity, other than applicant, which will actually receive EPA assistance. 40 C.F.R. §§ 5.105, 7.25. "Civil rights lawsuits and administrative complaints" means any lawsuit or administrative complaint alleging discrimination on the basis of race, color, national origin, sex, age, or disability pending or decided against the applicant and/or entity which actually benefits from the grant, but excluding employment complaints not covered by 40 C.F.R. Parts 5 and 7. For example, if a city is the named applicant but the grant will actually benefit the Department of Sewage, civil rights lawsuits involving both the city and the Department of Sewage should be listed. "Civil rights compliance review" means any review assessing the applicant's and/or recipient's compliance with laws prohibiting discrimination on the basis of race, color, national origin, sex, age, or disability. Submit this form with the original and required copies of applications, requests for extensions, requests for increase of funds, etc. Updates of information are all that are required after the initial application submission. If any item is not relevant to the project for which assistance is requested, write "NA" for "Not Applicable." In the event applicant is uncertain about how to answer any questions, EPA program officials should be contacted for clarification. * Note: Signature appears in the Approval Section of the EPA Comprehensive Administrative Review For Grants/Cooperative Agreements & Continuation/Supplemental Awards form.



EPA KEY CONTACTS FORM

OMB Number: 2030-0020
Expiration Date: 06/30/2024

Authorized Representative: *Original awards and amendments will be sent to this individual for review and acceptance, unless otherwise indicated.*

Name:	Prefix:	First Name:	Middle Name:
		Kristen	
	Last Name:		Suffix:
	Nelson		
Title:	Controller, Authorized Business Official		
Complete Address:			
Street1: 2166-D Avenida de la Playa			
Street2:			
City: La Jolla			
State: CA: California			
Zip / Postal Code: 92037-3238			
Country: USA: UNITED STATES			
Phone Number:	(858) 459-0434		Fax Number: (858) 459-9461
E-mail Address:	kristen@sequoiafoundation.org		

Payee: *Individual authorized to accept payments.*

Name:	Prefix:	First Name:	Middle Name:
		Kristen	
	Last Name:		Suffix:
	Nelson		
Title:	Controller, Authorized Business Official		
Complete Address:			
Street1: 2166-D Avenida de la Playa			
Street2:			
City: La Jolla			
State: CA: California			
Zip / Postal Code: 92037			
Country: USA: UNITED STATES			
Phone Number:	(858) 459-0434		Fax Number: (858) 459-9461
E-mail Address:	kristen@sequoiafoundation.org		

Administrative Contact: *Individual from Sponsored Programs Office to contact concerning administrative matters (i.e., indirect cost rate computation, rebudgeting requests etc).*

Name:	Prefix:	First Name:	Middle Name:
		Kristen	
	Last Name:		Suffix:
	Nelson		
Title:	Controller, Authorized Business Official		
Complete Address:			
Street1: 2166-D Avenida de la Playa			
Street2:			
City: La Jolla			
State: CA: California			
Zip / Postal Code: 92037			
Country: USA: UNITED STATES			
Phone Number:	(858) 459-0434		Fax Number: (858) 459-9461
E-mail Address:	kristen@sequoiafoundation.org		

EPA KEY CONTACTS FORM

Project Manager: *Individual responsible for the technical completion of the proposed work.*

Name: Prefix: **First Name:** **Middle Name:**
Last Name: **Suffix:**
Title:

Complete Address:

Street1:
Street2:
City: **State:**
Zip / Postal Code: **Country:**
Phone Number: **Fax Number:**
E-mail Address:

BUDGET INFORMATION - Non-Construction Programs

OMB Number: 4040-0006
Expiration Date: 02/28/2022

SECTION A - BUDGET SUMMARY

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. EPA-OAR-OAQPS-22-01	66.034	\$	\$	499,895.00	\$	499,895.00
2.						
3.						
4.						
5. Totals		\$	\$	499,895.00	\$	499,895.00

Standard Form 424A (Rev. 7-97)
Prescribed by OMB (Circular A -102) Page 1

SECTION B - BUDGET CATEGORIES

6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY				Total (5)
	(1)	(2)	(3)	(4)	
	EPA-OAR-OAQPS-22-01				
a. Personnel	\$ 116,819.00	\$	\$	\$	\$ 116,819.00
b. Fringe Benefits	40,887.00				40,887.00
c. Travel	2,400.00				2,400.00
d. Equipment	0.00				0.00
e. Supplies	2,900.00				2,900.00
f. Contractual	222,000.00				222,000.00
g. Construction	0.00				0.00
h. Other	29,600.00				29,600.00
i. Total Direct Charges (sum of 6a-6h)	414,606.00				\$ 414,606.00
j. Indirect Charges	85,289.00				\$ 85,289.00
k. TOTALS (sum of 6i and 6j)	\$ 499,895.00	\$	\$	\$	\$ 499,895.00
7. Program Income	\$	\$	\$	\$	\$

Authorized for Local Reproduction

Standard Form 424A (Rev. 7-97)
Prescribed by OMB (Circular A -102) Page 1A

SECTION C - NON-FEDERAL RESOURCES					
(a) Grant Program		(b) Applicant	(c) State	(d) Other Sources	(e)TOTALS
8.	EPA-OAR-OAQPS-22-01	\$	\$	\$	\$
9.					
10.					
11.					
12. TOTAL (sum of lines 8-11)		\$	\$	\$	\$

SECTION D - FORECASTED CASH NEEDS					
	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	\$ 256,564.00	\$ 64,141.00	\$ 64,141.00	\$ 64,141.00	\$ 64,141.00
14. Non-Federal	\$				
15. TOTAL (sum of lines 13 and 14)	\$ 256,564.00	\$ 64,141.00	\$ 64,141.00	\$ 64,141.00	\$ 64,141.00

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT					
(a) Grant Program		FUTURE FUNDING PERIODS (YEARS)			
		(b)First	(c) Second	(d) Third	(e) Fourth
16.	EPA-OAR-OAQPS-22-01	\$ 60,833.00	\$ 60,833.00	\$ 60,833.00	\$ 60,833.00
17.					
18.					
19.					
20. TOTAL (sum of lines 16 - 19)		\$ 60,833.00	\$ 60,833.00	\$ 60,833.00	\$ 60,833.00

SECTION F - OTHER BUDGET INFORMATION	
21. Direct Charges: 414,606	22. Indirect Charges: 85,289
23. Remarks:	

Authorized for Local Reproduction

Standard Form 424A (Rev. 7-97)
Prescribed by OMB (Circular A -102) Page 2

Project Narrative File(s)

* **Mandatory Project Narrative File Filename:**

Add Mandatory Project Narrative File

Delete Mandatory Project Narrative File

View Mandatory Project Narrative File

To add more Project Narrative File attachments, please use the attachment buttons below.

Add Optional Project Narrative File

Delete Optional Project Narrative File

View Optional Project Narrative File

Application for Federal Assistance SF-424

* 1. Type of Submission:

- ☐ Preapplication
☒ Application
☐ Changed/Corrected Application

* 2. Type of Application:

- ☒ New
☐ Continuation
☐ Revision

* If Revision, select appropriate letter(s):

* Other (Specify):

* 3. Date Received:

03/25/2022

4. Applicant Identifier:

5a. Federal Entity Identifier:

5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier:

8. APPLICANT INFORMATION:

* a. Legal Name:

Sequoia Foundation

* b. Employer/Taxpayer Identification Number (EIN/TIN):

33-0100208

* c. Organizational DUNS:

0109292430000

d. Address:

* Street1:

2166-D Avenida de la Playa

Street2:

* City:

La Jolla

County/Parish:

* State:

CA: California

Province:

* Country:

USA: UNITED STATES

* Zip / Postal Code:

92037-3238

e. Organizational Unit:

Department Name:

Division Name:

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:

* First Name:

Kristen

Middle Name:

* Last Name:

Nelson

Suffix:

Title:

Authorized Business Official

Organizational Affiliation:

* Telephone Number:

(858) 459-0434

Fax Number:

* Email:

kristen@sequoiafoundation.org

Application for Federal Assistance SF-424

* 9. Type of Applicant 1: Select Applicant Type:

M: Nonprofit with 501C3 IRS Status (Other than Institution of Higher Education)

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

* 10. Name of Federal Agency:

Environmental Protection Agency

11. Catalog of Federal Domestic Assistance Number:

66.034

CFDA Title:

Surveys, Studies, Research, Investigations, Demonstrations, and Special Purpose Activities
Relating to the Clean Air Act

* 12. Funding Opportunity Number:

EPA-OAR-OAQPS-22-01

* Title:

Enhanced Air Quality Monitoring for Communities

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

Add Attachment

Delete Attachment

View Attachment

* 15. Descriptive Title of Applicant's Project:

Establishing the Bay Area Community Air Quality Collaborative

Attach supporting documents as specified in agency instructions.

Add Attachments

Delete Attachments

View Attachments

Application for Federal Assistance SF-424**16. Congressional Districts Of:*** a. Applicant * b. Program/Project

Attach an additional list of Program/Project Congressional Districts if needed.

Add Attachment

Delete Attachment

View Attachment

17. Proposed Project:* a. Start Date: * b. End Date: **18. Estimated Funding (\$):**

* a. Federal	<input type="text" value="499,895.00"/>
* b. Applicant	<input type="text" value="0.00"/>
* c. State	<input type="text" value="0.00"/>
* d. Local	<input type="text" value="0.00"/>
* e. Other	<input type="text" value="0.00"/>
* f. Program Income	<input type="text" value="0.00"/>
* g. TOTAL	<input type="text" value="499,895.00"/>

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

- ☐ a. This application was made available to the State under the Executive Order 12372 Process for review on .
- ☐ b. Program is subject to E.O. 12372 but has not been selected by the State for review.
- ☒ c. Program is not covered by E.O. 12372.

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**☐ Yes ☒ No

If "Yes", provide explanation and attach

Add Attachment

Delete Attachment

View Attachment

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

☒ ** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: * First Name:

Middle Name:

* Last Name:

Suffix:

* Title: * Telephone Number: Fax Number: * Email: * Signature of Authorized Representative: * Date Signed:

Other Attachment File(s)

* Mandatory Other Attachment Filename:

Add Mandatory Other Attachment

Delete Mandatory Other Attachment

View Mandatory Other Attachment

To add more "Other Attachment" attachments, please use the attachment buttons below.

Add Optional Other Attachment

Delete Optional Other Attachment

View Optional Other Attachment



Dr. John Petterson
Sequoia Foundation

Re: US EPA Enhanced Air Quality Monitoring for Communities

Dear Dr. John Petterson:

We at Brightline are enthusiastic about your application entitled Establishing the Bay Area Community Air Quality Collaborative. Your proposal will establish a sustained, regional community air quality collaborative of community-based organizations, government collaborations, data analysis stakeholders and technology partners that will support long-term efforts required to drive improved air quality outcomes at the community level.

Since 2006, our nonprofit organization has promoted sustainability and empowerment of low-income, frontline communities within and outside of California. In addition to establishing a localized air quality monitoring program, we have deeply engaged dense urban environmental justice communities throughout the Bay Area. In this work, we recently highlighted the impacts of climate change on residents of high-density, low-income housing (i.e., single-room occupancy). As you know, this community has a higher burden of chronic medical conditions and little access to indoor air filtration and personal protective equipment.

We are especially interested in how this collaborative will embed a scalable, inclusive framework that provides coordinated community engagement and capacity building opportunities and how this framework will expand our impact in our local communities in San Francisco. Developing formal partnerships with community stakeholders to improve our understanding of barriers while identifying acceptable community-level interventions is key in our ability to our plan to mitigate the effects of poor air quality. The BACAQ Collaborative aligns with our goals at Brightline and will ensure our air sensor deployments are consistently traceable back to the Bay Area Air Quality Management District (BAAQMD)'s regulatory monitoring infrastructure and sited appropriately to address community concerns.

Brightline is pleased to support and endorse this proposal. We look forward to the potential to partner with you on this project. Please do not hesitate to contact me directly with any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "E. Ahn", with a horizontal line extending to the right.

Eddie H. Ahn
Executive Director



03/17/2022

re: Letter of Support on behalf of Sequoia Foundation's Proposal, "Establishing the Bay Area Community Air Quality Collaborative", in response to the U.S. EPA's Enhanced Air Quality Monitoring for Communities RFA

To whom it may concern,

My name is Julio Garcia – I am the Founding Director of Rise South City.

I am writing this Letter of Support on behalf of Rise South City's support of the Sequoia Foundation's proposal titled "*Establishing the Bay Area Air Community Air Quality Collaborative*" submitted in response to the U.S. EPA's "Enhanced Air Quality Monitoring for Communities" RFA. The proposed project would fund the establishment of a sustained, regional community air monitoring collaborative and the deployment of low-cost air sensors networks within several Bay Area environmental justice communities – including South San Francisco.

Rise South City Mission is committed to creating dialogues with our frontline communities about climate change & social equity issues and to learn about the different intersectional systems that underpin it and help develop local solutions for transformational reform. We promote community resilience, economic equity, and climate stability.

Rise South City aims to create a new center of gravity in the climate movement by uniting frontline communities, allies, and organizations towards resilient, regenerative, and equitable neighborhoods.

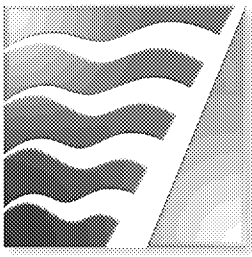
This resource-efficient collaboration will further enable our organization's goal of advancing environmental justice within the South San Francisco and aligns well with our ongoing work – including our recent James Cary Smith Community Grant Program grant funding from the Bay Area Air Quality Management District (BAAQMD) that will support our synergistic community engagement activities.

If you have any questions regarding our support for this project or our organization's work please do not hesitate to contact us at the email address below.

Sincerely,

Julio Garcia

Julio Garcia
Founding Director, Rise South City
julio@rise-southcity.org



**BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT**

ALAMEDA COUNTY

John J. Bauters
(Vice Chair)
Pauline Russo Cutter
David Haubert
Nate Miley

CONTRA COSTA COUNTY

John Gioia
David Hudson
Karen Mitchoff
(Chair)
Mark Ross

MARIN COUNTY

Katie Rice

NAPA COUNTY

Brad Wagenknecht

SAN FRANCISCO COUNTY

Tyrone Jue
(SF Mayor's Appointee)
Myrna Melgar
Shamann Walton

SAN MATEO COUNTY

David J. Canepa
Carole Groom
Davina Hurt
(Secretary)

SANTA CLARA COUNTY

Margaret Abe-Koga
Cindy Chavez
Rich Constantine
Rob Rennie

SOLANO COUNTY

Erin Hannigan
Lori Wilson

SONOMA COUNTY

Teresa Barrett
Lynda Hopkins

Alexander Crockett
**INTERIM ACTING
EXECUTIVE OFFICER/APCO**

Connect with the
Bay Area Air District:



March 23, 2022

Dr. John Petterson
Executive Director
Sequoia Foundation
2166-D Avenida de la Playa
La Jolla, CA 92037

RE: Letter of Support for EPA Enhanced Air Quality Monitoring for Communities Grant

Dear Dr. Petterson:

The Bay Area Air Quality Management District (Air District) would like to express its support for Sequoia Foundation's community project in partnership with Brightline Defense and RISE South City in communities throughout the Bay Area.

The Air District values the work of Sequoia Foundation in communities throughout the Bay Area, Brightline Defense's work in Eastern San Francisco, and RISE South City's work in South San Francisco to address environmental injustice and air pollution.

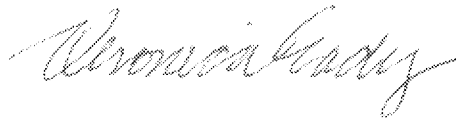
The EPA grant would allow Sequoia Foundation and its numerous regional project partners to establish a sustained, regional community air quality collaborative of community-based organizations, government collaborations, data analysis stakeholders, and technology partners that support a consistent framework for the deployment of sensor networks, establishment of best practices, community capacity building, and engagement on community specific air pollution issues.

We anticipate continued collaborations with Sequoia Foundation, their project partners, and their neighborhood allies as these organizations engage with and empower communities historically impacted by cumulative disproportionate health burdens. Should Sequoia Foundation receive funding, the Air District is committed to supporting implementation of the grant through technical support provided by the Bay Air Center. If the project is funded, the extent of technical support will be scoped to match the specific needs of the project and will be dependent on available resources. Technical support may include assistance in sensor network planning and deployment, technical trainings and capacity building, community specific data analysis, as well as sensor network quality assurance support and field support.

March 23, 2022

We look forward to partnering with you to improve air quality in the Bay Area, and to working toward health equity for all Bay Area residents.

Sincerely,

A handwritten signature in cursive script, reading "Veronica Eady".

Veronica Eady
Senior Deputy Executive Officer of Policy & Equity
Bay Area Air Quality Management District

Cc: BAAQMD Environmental Justice & Community Engagement Officer
Suma Peesapati
BAAQMD Meteorology and Measurements Director Ranyee Chiang



March 23rd, 2022

Sequoia Foundation
2166-D Avenida de la Playa
La Jolla, CA 92037

To Dr. John Petterson,

I am very pleased to provide this Letter of Support on behalf of Clarity Movement's commitment to supporting the Sequoia Foundation's proposal, entitled "*Establishing the Bay Area Community Air Quality Collaborative*" being submitted in response to the U.S. EPA's Enhanced Air Quality Monitoring for Communities RFA.

At Clarity we transform how cities, governments, and communities understand and respond to air pollution with next-generation, sensor-based air quality monitoring technologies. Since 2014, Clarity's air monitoring solutions have been deployed with government and/or community partners in over 65 countries, across six continents – including collaborations with the U.S. EPA, U.S. State Department, the Bay Area Air Quality Management District (BAAQMD) and California Air Resources Board (CARB).

Should the proposed project be selected for funding, Clarity will provide continuous support regarding the design, planning and deployment of the proposed air monitoring sensor network which includes twenty-five (25) Clarity Node-S air monitors measuring PM_{2.5} and NO₂ in real-time for a period of two years (Project Task 3) throughout the communities of the San Francisco Tenderloin, SoMa and Bayview Hunters Point neighborhood, South San Francisco and East Oakland.

Clarity will additionally provide continuous support to the Project within the scope of our Sensing-as-a-Service air monitoring partnership, as well as explore additional regional or programmatic synergies with other deployed projects throughout the California Bay Area. We are pleased to confirm that Clarity Movement's Project Team and or Leadership will participate in the proposed Training Module Development and Regional Air Quality Training Workshops (Task 2) throughout the Bay Area.

Additionally, we will be pleased to leverage our substantial regional networks and communication channels to further increase regional Community Engagement with the proposed Community Air Quality Collaborative (Task 1) by expanding the outreach and inclusivity of the proposed collaboration.

Likewise, Clarity has significant experience developing case studies and "best practices" guides and welcomes the opportunity to contribute to the proposed community-specific air quality case studies and "Bay Area Community Air Monitoring Best Practices Guide" (Task 4).

Due to our great respect for the community-focused mission of this proposal and our history of collaboration with the Sequoia Foundation, Brightline Defense, California Department of Public Health and other Project Partners, we are pleased to provide a 20% Community Discount on our Sensing-as-a-Service air monitoring pricing, representing a total of \$12,000 USD in "in-kind" matching funds over the proposed two-year monitoring duration.

CLARITY MOVEMENT CO.
808 Gilman Street, Berkeley, CA 94710 | clarity.io



If you have any questions regarding this Letter of Support, the referenced "in-kind" matching funds, or Clarity's Sensing-as-a-Service air monitoring solutions please do not hesitate to contact me at the mobile number or email below.

We very much look forward to this proposed partnership and a continued collaboration with the Sequoia Foundation and our other project collaborators on improving the air quality management capabilities and capacities of our community throughout the California Bay Area.

Sincerely,

A handwritten signature in black ink, appearing to read 'Sean Wihera', with a long horizontal flourish extending to the right.

Sean Wihera
VP, Business Development and Partnerships
Clarity Movement
E: sean@clarity.io
M: +1-925-876-3381



Fighting air inequality with open data & community

4301 50th St NW, Suite 300 #1046, Washington, D.C. 20016
info@openaq.org | openaq.org | github.com/openaq | openaq.slack.com

March 22, 2022

Re: Letter of Support on behalf of Sequoia Foundation's Proposal, "Establishing the Bay Area Community Air Quality Collaborative," in response to the U.S. EPA's Enhanced Air Quality Monitoring for Communities RFA

Dear Dr. John Petterson,

I am writing on behalf of **OpenAQ** in support of the Sequoia Foundation's proposal titled "*Establishing the Bay Area Air Community Air Quality Collaborative*" submitted in response to the U.S. EPA's "Enhanced Air Quality Monitoring for Communities" RFA.

The proposed establishment of a sustained, regional community air monitoring collaborative and related activities would provide tremendous resource efficiencies to current and future air quality research and analyses throughout the Bay Area – and beyond.

OpenAQ, a nonprofit organization, harmonizes and shares air quality data on a global open-source data platform and empowers communities to use the data. To date, data from the OpenAQ platform have been used to produce peer-reviewed scientific research papers, to power web and phone apps, to calibrate citizen science and private sector low-cost sensor efforts, and more. Community members have built open-source tools off of the universal dataset, enabling, for example, a statistician in Indonesia to quickly analyze data because of something someone in Mongolia created.

Community members from around the world have connected virtually through our Slack Channel and through our city-level workshops. They have gone on to conduct new scientific studies done in collaboration with local policy experts, jointly lobbied for new air quality standards, and requested their government open up their air quality data. Our open-data platform will support the proposed Bay Area Community Air Quality Collaborative in their continued work towards improving air quality management throughout the California Bay Area.

We strongly commend the proposed project to you. If you have any questions regarding our support, please do not hesitate to contact me.

A handwritten signature in black ink that reads "CHagerbaumer".

Chris Hagerbaumer
Executive Director, OpenAQ
chris@openaq.org



March 21, 2021

Re: Letter of Support on behalf of Sequoia Foundation's Proposal, "Establishing the Bay Area Community Air Quality Collaborative", in response to the U.S. EPA's Enhanced Air Quality Monitoring for Communities RFA

To whom it may concern,

My name is Carl Malings – I am an Assistant Research Scientist at Morgan State University, performing research at the NASA Goddard Space Flight Center under the Goddard Earth Science Technology and Research, or GESTAR II cooperative agreement.

I am writing this Letter of Support in support of the Sequoia Foundation's proposal titled "*Establishing the Bay Area Air Community Air Quality Collaborative*" submitted in response the U.S. EPA's "Enhanced Air Quality Monitoring for Communities" RFA.

The proposed establishment of a sustained, regional community air monitoring collaborative would provide tremendous resource efficiencies to current and future air quality research and analyses throughout the Bay Area.

My research involves the integration of air quality data from multiple sources, including satellites, models, and ground-based measurements from regulatory and low-cost sensors. Having free and open access to quality-controlled data from dense networks of air quality monitors in urban areas, especially where such networks can supplement existing monitoring such as in the Bay Area, is greatly beneficial to my ongoing research. The sensor network deployments and ongoing regional community air monitoring collaborative activities of this proposal would certainly be useful to me in providing data for developing and supporting the validation of air quality data integration methods and could easily become a part of my ongoing and future research activities.

If you have any questions regarding my support for this project please do not hesitate to contact me at the email address below.

Carl Malings

**Carl Malings
Assistant Research Scientist
Morgan State University
GESTAR II Cooperative Agreement
Email: carl.a.malings@nasa.gov**

Goddard Earth Science Technology and Research (GESTAR) II
5523 Research Park Drive Suite #140 Baltimore, MD 21228
Phone: 410-455-8812 Fax: 410-455-8806

March 21, 2022

Re: Letter of Support on behalf of Sequoia Foundation's Proposal, "Establishing the Bay Area Community Air Quality Collaborative", in response to the U.S. EPA's Enhanced Air Quality Monitoring for Communities RFA

To whom it may concern,

My name is Minghui Diao. I am an Associate Professor in the Department of Meteorology and Climate Science at San Jose State University (SJSU). I am the lead of the SJSU Cloud and Aerosol Laboratory (www.cloud-research.org). I am also an adjunct faculty member with the SJSU Wildfire Interdisciplinary Research Center (SJSU-WIRC, <https://www.sjsu.edu/wildfire>).

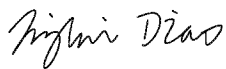
I am writing this Letter of Support on behalf of the SJSU Cloud and Aerosol Laboratory in support of the Sequoia Foundation's proposal titled "*Establishing the Bay Area Air Community Air Quality Collaborative*" submitted in response to the U.S. EPA's "Enhanced Air Quality Monitoring for Communities" RFA.

One of my research foci is to improve the understanding of PM_{2.5} surface concentrations during wildfire periods in California, in order to support the adaptation to climate change by various communities, especially under-represented communities and Environmental Justice (EJ) communities. In my previous review article (Diao et al., 2019, JAMWA), we found that the sparse distributions of US EPA FRM ground monitors have limited monitoring of PM_{2.5} concentrations for rural areas, which may not provide the timely support for decision making during episodic air pollution events such as California wildfires.

The proposed project led by Clarity Movement Co. aims to establish a sustained, regional community air monitoring collaborative and related activities would provide tremendous resource efficiencies to current and future air quality research and analyses throughout the Bay Area. This research topic is also aligned with my research group's interests in providing sustained, publicly accessible PM_{2.5} data to the entire research community as well as the general public.

If you have any questions regarding our support for this project or my group's research history related to this topic, please do not hesitate to contact us at the email address below.

Sincerely,

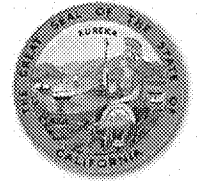


Minghui Diao, Ph.D.
Associate Professor
Department of Meteorology and Climate Science
San Jose State University
One Washington Square
San Jose, CA, 95192-0104
Email: minghui.diao@sjsu.edu
Website: www.cloud-research.org



TOMÁS J. ARAGÓN, MD, DrPH
Director and State Public Health Officer

State of California—Health and Human Services Agency
California Department of Public Health



GAVIN NEWSOM
Governor

March 18, 2022

Dr. John Petterson
Sequoia Foundation
2166-D Avenida de la Playa
La Jolla, CA 92037

Re: Letter of Support on behalf of Sequoia Foundation's Proposal, "Establishing the Bay Area Community Air Quality Collaborative", in response to the U.S. EPA's Enhanced Air Quality Monitoring for Communities RFA

To Dr. John Petterson,

My name is Kazukiyo Kumagai – I am the Chief of Air Quality Section (AQS) and the Interim Chief, Environmental Health Laboratory Branch (EHLB) at California Department of Public Health (CDPH).

I am writing this Letter of Support, on behalf of CDPH EHLB, in support of the Sequoia Foundation's proposal titled "Establishing the Bay Area Air Community Air Quality Collaborative" submitted in response to the U.S. EPA's "Enhanced Air Quality Monitoring for Communities" RFA.

The AQS at CDPH is a combination of the previous Indoor Air Quality (IAQ) and Outdoor Air Quality (OAQ) programs. Our program promotes healthy indoor and outdoor air for all Californians, through multidisciplinary expertise in chemistry, physics, engineering, epidemiology, exposure assessment, and microbiology. The emergence of relatively low-cost air samplers and sensors has created greater opportunities for community-based air measurements. AQS is actively conducting research to implement low cost and portable air samplers and sensors in a variety of environments. The proposed establishment of a sustained, regional community air monitoring collaborative and related activities would provide tremendous resource efficiencies to current and future air quality research and analyses throughout the Bay Area. The project would greatly benefit the State by enhancing the community air monitoring capabilities and by contributing to the emergency preparedness for reducing wildfire smoke exposure.

If you have any questions regarding our support for this project or organization's history please do not hesitate to contact us at the email address below.

CDPH Environmental Health Laboratory Branch
850 Marina Bay Parkway (Mailcode G-365) • Richmond, CA 94804
(510) 620-2801 OFFICE • (510) 620-2825 FAX
www.cdph.ca.gov/EHL



ED_013931A_00001788-00010

Sincerely,

A handwritten signature in black ink, appearing to read '熊谷 清' (Kumagai Kazukiyo) in Japanese characters.

Kazukiyo Kumagai, Ph.D., M.P.H.
Chief, Air Quality Section
Interim Chief, Environmental Health Laboratory Branch
Center for Healthy Communities
California Department of Public Health

[Type text]

Manifest for Grant Application # GRANT13580565

Grant Application XML file (total 1):

1. GrantApplication.xml. (size 24464 bytes)

Forms Included in Zip File(total 6):

1. Form ProjectNarrativeAttachments_1_2-V1.2.pdf (size 16023 bytes)

2. Form SF424_3_0-V3.0.pdf (size 24078 bytes)

3. Form SF424A-V1.0.pdf (size 22729 bytes)

4. Form EPA4700_4_3_0-V3.0.pdf (size 22697 bytes)

5. Form OtherNarrativeAttachments_1_2-V1.2.pdf (size 16000 bytes)

6. Form EPA_KeyContacts_2_0-V2.0.pdf (size 37248 bytes)

Attachments Included in Zip File (total 5):

1. OtherNarrativeAttachments_1_2 OtherNarrativeAttachments_1_2-Attachments-1235-Sequoia 501C3.pdf application/pdf (size 70387 bytes)

2. ProjectNarrativeAttachments_1_2 ProjectNarrativeAttachments_1_2-Attachments-1238-Project Narrative - EPA EAQMC Proposal - Final.pdf application/pdf (size 411289 bytes)

3. OtherNarrativeAttachments_1_2 OtherNarrativeAttachments_1_2-Attachments-1234-Quality Assurance Statement.pdf application/pdf (size 337248 bytes)

4. OtherNarrativeAttachments_1_2 OtherNarrativeAttachments_1_2-Attachments-1237-Resumes.pdf application/pdf (size 909908 bytes)

5. OtherNarrativeAttachments_1_2 OtherNarrativeAttachments_1_2-Attachments-1236-Partnership Letters.pdf application/pdf (size 2304216 bytes)

INTERNAL REVENUE SERVICE
P. O. BOX 2508
CINCINNATI, OH 45201

DEPARTMENT OF THE TREASURY

Date: JUN 15 2000

SEQUOIA FOUNDATION
2166 AVENIDA DE LA PLAYA SUITE D
LA JOLLA, CA 92037

Employer Identification Number:
33-0100208
DLN:
17053099861040
Contact Person:
JEFFREY D SPROUL ID# 31182
Contact Telephone Number:
(877) 829-5500
Our Letter Dated:
October of 1985
Addendum Applies:
No

Dear Applicant:

This modifies our letter of the above date in which we stated that you would be treated as an organization that is not a private foundation until the expiration of your advance ruling period.

Your exempt status under section 501(a) of the Internal Revenue Code as an organization described in section 501(c)(3) is still in effect. Based on the information you submitted, we have determined that you are not a private foundation within the meaning of section 509(a) of the Code because you are an organization of the type described in section 509(a)(1) and 170(b)(1)(A)(vi).

Grantors and contributors may rely on this determination unless the Internal Revenue Service publishes notice to the contrary. However, if you lose your section 509(a)(1) status, a grantor or contributor may not rely on this determination if he or she was in part responsible for, or was aware of, the act or failure to act, or the substantial or material change on the part of the organization that resulted in your loss of such status, or if he or she acquired knowledge that the Internal Revenue Service had given notice that you would no longer be classified as a section 509(a)(1) organization.

You are required to make your annual information return, Form 990 or Form 990-EZ, available for public inspection for three years after the later of the due date of the return or the date the return is filed. You are also required to make available for public inspection your exemption application, any supporting documents, and your exemption letter. Copies of these documents are also required to be provided to any individual upon written or in person request without charge other than reasonable fees for copying and postage. You may fulfill this requirement by placing these documents on the Internet. Penalties may be imposed for failure to comply with these requirements. Additional information is available in Publication 557, Tax-Exempt Status for Your Organization, or you may call our toll free number shown above.

If we have indicated in the heading of this letter that an addendum applies, the addendum enclosed is an integral part of this letter.

Letter 1050 (DO/CG)

SEQUOIA FOUNDATION

Because this letter could help resolve any questions about your private foundation status, please keep it in your permanent records.

If you have any questions, please contact the person whose name and telephone number are shown above.

Sincerely yours,

Steven T. Miller

Steven T. Miller
Director, Exempt Organizations

Letter 1050 (DO/CG)

Project Title: Establishing the Bay Area Community Air Quality Collaborative

Applicant Information: Sequoia Foundation

2166-D Avenida de la Playa, La Jolla, CA 92037

Kristen Nelson, (858) 459-0434, kristen@sequoiafoundation.org

DUNS number: 010929243

Set-Aside: No Set-Aside

Brief Description of Applicant Organization:

Sequoia Foundation is a state and federally recognized non-profit founded in 1983 with a long history of conducting public and environmental health research, providing health education and program support, and enhancing the capabilities of community-based organizations. Sequoia Foundation staff have conducted more than 30 research and public health projects funded through grants and cooperative agreements with state and federal agencies, including the California Department of Public Health, CDC and US EPA.

Project Partners & Primary Contacts:

Brightline Defense (Eddie Ahn) - Community Partner for Eastern San Francisco

Rise South City (Julio Garcia) - Community Partner for South San Francisco

Bay Area Air Quality Management District (Veronica Eady) - Government Collaborator

Clarity Movement (Sean Wihera) - Technology Partner for Sensors

Open AQ (Chris Hagerbaumer) - Technology Partner for Open Data Access

Project Location:

San Francisco Tenderloin (94102), SoMa Neighborhoods (94103) Bayview Hunters-Point (94124), South San Francisco (94080), & East Oakland (94619, 94601, 94605, 94621, 94603)

Air Pollutant Scope: PM_{2.5} and NO₂

Budget Summary: Total requested from US EPA: \$499,895 (this is the total project cost)

Project Period: January 1, 2023 – December 31, 2024

Short Project Description:

We propose creating a regional, resource-efficient collaboration of community-based organizations, government collaborators, data analysis stakeholders, and technology partners in the California Bay Area that will undertake 1) community engagement & community-specific needs-assessment activities, 2) support air quality capacity-building, 3) deploy a public network of low-cost air sensors throughout three California Bay Area environmental justice communities (*Eastern San Francisco, East Oakland and South San Francisco*) and 4) promote best practices in community air monitoring derived from our activities. All sensor data, monitoring cases studies, and best practices will be documented and disseminated to benefit future community-led air monitoring activities.

1 - Project Summary and Approach

As part of an extensive collaboration, the Sequoia Foundation and numerous regional project partners throughout the California Bay Area propose to establish a sustained, regional community air quality collaborative of community-based organizations, government collaborations, data analysis stakeholders, and technology partners. Over the two-year proposed project period the Bay Area Community Air Quality Collaborative (BACAQC) will support 1) regional air quality community engagement and needs assessment, 2) community air quality capacity building activities, 3) deploy a public network of low-cost air sensors throughout

several Bay Area environmental justice communities and consolidate, and 4) enhance knowledge management and publicly promote best practices in community air monitoring.

Overall Project (Project Plan & Project Tasks)

The Bay Area Community Air Quality Collaborative (BACAQC) is proposed as a two-year project separated into four Primary Tasks:

Task 1 - Regional Community Engagement

Task 1A: Regional Air Quality Needs Assessment Workshops

The BACAQC Team will host three half-day Regional Air Quality Needs Assessment Workshops in the communities of East Oakland, Eastern San Francisco, and South San Francisco to gather input from community members about their knowledge and opinions on air quality. Specifically, we will assess community concerns about air pollutants, sources, and health impacts and measure baseline level of understanding of monitoring data. We also want to gauge their interest in participating in a regional air monitoring project and determine how to make it meaningful to their communities. The BACAQC Partners will leverage their community networks and issue subcontracts to other local community-based organizations to promote engagement with these Regional Air Quality Needs Assessment Workshops to help recruit workshop participants. The project team will additionally invite community members to participate in surveys to gather more specific input. These surveys will be written in easy-to-understand language and be made available in English, Spanish, Chinese, Vietnamese, and other languages as determined necessary to best engage monolingual communities. Participants will complete the survey online using the BACAQC Website (Task 1C) or in person.

Task 1B: Youth Leadership and Engagement Activities

Brightline Defense has an established partnership with the Community Youth Center to work with Youth Leaders across high schools in San Francisco. Brightline Defense will leverage this partnership to provide peer to peer air quality engagement and education. Prior work has focused on engaging bilingual Youth Leaders that are able to effectively engage monolingual communities within Eastern San Francisco, increasing cultural competency of community engagement activities throughout the community. Similarly, the Sequoia Foundation has engaged youth leaders to assess and address air quality issues within their communities. The BACAQC will leverage the Sequoia Foundation's existing collaborative relationships with the San Leandro and Oakland Unified School District (OUSD)s. Sequoia Foundation has worked with teachers to develop lessons that integrate the use of portable air monitors as part of air monitoring projects and students use findings to promote community education. Future Youth Leadership and engagement activities with these partners would leverage the data from the community sensor networks deployed under Task 3.

Task 1C: Develop BACAQC Website and Outreach Materials

The BACAQC team will develop a public website for community members to learn about the project; find out about project sponsored community workshops and events; provide input on the project; and view real-time local air quality data (Task 3B) and community-specific monitoring studies and best practices guides (Task 4A & 4B). The website will be written at a low-literacy level and available in multiple languages. The Sequoia Foundation has developed numerous websites for public health collaboratives, including those addressing complex environmental health issues like air quality. For those who do not access information online, the BACAQC will create multi-lingual posters, with easy to consume infographics that will be distributed at key community locations such as health clinics and community centers.

Task 1D: Engagement with the BAAQMD Community Advisory Council (CAC)

Based on the community air quality needs identified in Task 1A, the BACAQC AQ Coordinators will help develop and submit continuous public comments to the BAAQMD's CAC on community needs. The BACAQC will invite community members to participate in CAC meetings and offer assistance in making and submitting public comments about future agenda items or action items CAC should take, thereby enhancing the community participation in the CAC process.

Task 2 - Community Air Quality Capacity Building

Task 2A: AQ Training Module Development & Workshop Engagement

Based on needs assessment workshops, surveys, and community inputs (Task 1), the BACAQC will develop two sets of community education materials—one for community members who will become air quality educators ("Train-the-Trainer"), and the other for CBO partners to distribute to the public. Materials for prospective community trainers include a short curriculum of slides, handouts, sample scripts, worksheets, and a glossary of air quality terms. Public education resources will be simple guides to understand/access air quality data, what it means, and how to protect one's health. These materials will be made available in several languages.

Task 2B: Community AQ Training Workshops

The BACAQC Project Partners will collaborate to host three regional Community AQ Training Workshops that are envisioned as half-day engagements that will leverage the content developed under Task 2A with Community Members and Community Trainers. Once trained, Community Trainers will be asked to conduct at least two training sessions within their respective communities. Each Workshop will be recorded and promoted via the BACAQC. The Training Modules and related activities of the Workshops will be led by participating BACAQC Project Partners, including staff from Sequoia Foundation, Brightline Defense, Rise South City, Bay Air Center / BAAQMD, Clarity Movement as well as other project stakeholders.

Task 2C: Community AQ Impact Assessment

The Project Team will assess the impact of the Community AQ Training Workshops using various tools including follow up online surveys, simple text-message surveys, and interviews or focus groups with a small subset of participants. We will deploy these evaluation methods at various intervals post-workshop to assess if the impact of the Training Workshops and the Train-the-Trainer activities is growing, declining, or being used during pollution events (e.g., wildfires), and whether people find it compelling and easy to use. An online survey will provide input on retained knowledge, preferences and beliefs, a text survey, limited to 3-4 questions will likely reach a larger audience for simple responses, and interviews or focus groups will provide more detailed and nuanced feedback about the program and how to make improvements.

Task 3 - Community Air Monitoring Deployments

Task 3A: Clarity Sensor Network Deployments

Implementing community-specific input from Task 1, the BACAQC will further refine a sensor network siting strategy that addresses the unique air quality challenges and concerns for each of the three communities. The BAAQMD's Bay Air Center has agreed to support the scoping, planning, deployment, and QA/QC of sensor networks in each community.

Task 3B: Provide Public Access to Community Air Monitoring Sensor Data

All sensor data - both raw and calibrated - will be made freely available to the public and published by the BACAQC Project Partners OpenAQ. With projects in over 65 countries, Clarity has significant experience making quality-assured air sensor data available to the public and a formal partnership with OpenAQ that will further amplify data sharing opportunities. Additionally, all sensor data will be made easily accessible and visualized through the Clarity OpenMap - a

simplified visualization tool that can be easily accessed and navigated by community members.

Task 3C: Community-Specific AQ Sensor Data Analysis Reports

The BACAQC Project Partners - including support from the BAAQMD and Bay Air Center - will analyze the sensor data from each community-specific sensor network to develop data analysis reports and products from the deployed Clarity sensor Networks and relevant FEM/FRM Regulatory Sites for the community. These reports will be disseminated to the community members and made publicly available through the BACAQC website.

Task 4 - Knowledge Management and Promoting Best Practices

Task 4A: Develop Joint Case Studies on Community Air Monitoring Deployments

Sequoia Foundation staff have developed best practice guides for various environmental health programs, including a short best practice guide for working with schools to teach youth about air quality. These types of guides promote project replication or adaptation in other communities. The project team will collaborate on the development of community-specific case studies that review, for example the community-involved planning process, coordination, sensor siting process, sensor deployment, calibration, and operation of each deployed community sensor network with a goal of distilling best-practices, challenges and lessons learned.

Task 4B: Develop “Bay Area Best Practices for Community Air Monitoring Guide”

Throughout the project, BACAQC Partners will compile steps taken, what conditions contributed to success, and what barriers created challenges. We will ultimately create a step-by-step guide and highlight impacts and challenges that we worked to overcome socially, logistically, technically, and financially to establish the BACAQC and complete the proposed activities.

1.1 Project Significance

The proposed project will provide critically-need community engagement and capacity-building activities in each of the three identified project communities: Eastern San Francisco (Tenderloin, SoMa & Bayview-Hunters Point), South San Francisco and East Oakland. As discussed in Section 3, each of these three communities have complicated environmental justice challenges and have been identified by EJScreen's PM2.5 EJ Index in the 95-100th percentile, nationally. Additionally, as each community ranks highly in Traffic Proximity (*and consequently exposed to transportation-related emissions*), the measurements of NO2 - an EPA Criteria Air pollutant that are not included by the EJScreen Tool or well-represented by regional regulatory monitoring infrastructures given the highly localized dispersion characteristics of NO2 - will provide new insights into the pollution burdens and interventions needed to reduce air pollution exposure.

The proposed community engagement and need-assessment workshops (Task 1) will facilitate the alignment of the subsequent capacity-building activities (Tasks 2) with community-specific needs. The capacity-building activities (Task 2) will be coupled with deployment of new air monitors in each engaged community (Task 3) measuring PM2.5 and NO2. These are relevant pollutant measurements for quantifying community exposures to traffic-related pollutants, wildfire smoke and some industrial sources. Sensor data will be used to support the localized engagement and capacity-building activities (Task 1 & 2), as well as community-specific health and exposure analyses (Task 3). Throughout these activities, special attention will be focused on ensuring all materials are accessible to community members in appropriate languages and vocabulary suited to varying levels of education to maximize the community audiences served.

Additionally, in terms of further scaling the benefits of Tasks 1-3, the BACAQC Team will produce Community-Specific Case Studies and “Bay Area Best Practices for Community Air Monitoring Guide” (Task 4) that will benefit other local community air quality projects.

2 - Community Involvement

2.1 Community Partnerships

The BACAQC will launch with significant engagement from three community-based organizations throughout the Bay Area, including: the Sequoia Foundation, Brightline Defense, and Rise South City - each of which are recent awardees of the BAAQMD's James Cary Smith Community Grant Program funded to perform the following community engagement activities:

Eastern San Francisco (Tenderloin, SoMa & Bayview-Hunters Point) (Brightline Defense):

Brightline will be responsible for maintaining an existing 18 Clarity Node-S network from 2022-2024 in Eastern San Francisco (Task 3). This specific sensor network has been previously funded via the California Air Resources Board (CARB) AB617 Community Air Grants but may be expanded with the EPA-funded devices as determined by the Needs-Assessment Workshop and related activities (Task 1). Brightline will manage regional community engagement (Task 1) and community air quality capacity building (Task 2). Brightline Defense launched its Air Quality Monitoring Program in January 2020 and deployed 19 sensors by Fall 2020 and had over 1,000 unique visitors to the Clarity Open Data Map within three months. The 2020-2022 AB 617 Grant Cycle ended March 15, 2022, and Brightline is now starting the awarded 2022-2024 AB 617 Grant Cycle, where it will expand its sensor network to include two four-week studies using ABCDs (black carbon monitors) in partnership with UC Berkeley researchers.

Brightline will benefit from the BACAQC Collaboration as it will increase community engagement and impact on a regional level where previously Brightline has focused its efforts solely within Eastern San Francisco. The Collaborative will create a sustainable community-based foundation for future air quality partnerships.

East Oakland (Sequoia Foundation): Sequoia Foundation will lead community engagement (Task 1) and capacity-building activities (Task 2) with the East Oakland community. The proposed work will leverage existing collaborations between East Oakland and Sequoia Foundation that has been catalyzed by a recently awarded 12-month grant from BAAQMD (#2022.020) and a separate 12-month cooperative agreement with the California Department of Public Health that have funded significant engagement with several OUSD high schools. These existing collaborations provide OUSD students with lessons on stationary and mobile air quality sources in East Oakland, seasonal wildfires, and the health impacts on communities disproportionately affected by poor air quality, and community engagement strategies. This work aligns with the proposed Youth Leadership and Engagement Activities (Task 1B). Additionally, these projects have resulted in engagement with active community groups in East Oakland e.g., the Rose Foundation, West Oakland Environmental Indicators Project, the OUSD, CDPH, and Cal-Fire. These preexisting relationships are highly synergistic with the proposed goals. Sequoia Foundation's participation in the BACAQC Collaboration existing and proposed public health-focused activities will promote a wider replication of existing interventions and larger collaborations within the East Oakland community.

South San Francisco (Rise South City): Rise South City will lead air quality monitoring deployments throughout traffic-impacted neighborhoods of South San Francisco and engage the broader community to further quantify the PM_{2.5} and NO₂ air pollution. The resulting data will support increased community awareness (Task 1), community-focused AQ analyses (Task 3C) that may further support potential pollution interventions, and community capacity-building (Task 2) intended to promote pollutant exposure reductions throughout the community. Rise promotes community resilience, economic equity, and climate stability. Rise South City is a recent awardee of the BAAQMD's James Cary Smith Community Grant Program that was

designed to empower and fund local community leaders and uplift local efforts that improve air quality and reduce exposure to air pollution in South San Francisco (Task 2).

Rise South City aims to create a new center of gravity in the climate movement by uniting frontline communities, allies, and organizations towards resilient, regenerative, and equitable neighborhoods. Participation in the BACAQC will greatly multiply the reach and resource-efficiency of Rise South City's air quality-related work throughout the Bay Area and provide a sustained collaboration to carry into the future.

2.2 - Community Engagement

Incorporating community input throughout the design and execution of the described Tasks is a key element of the proposed project. The Bay Area Community Air Quality Collaboratively intentionally and explicitly engaged a broad spectrum of regional air quality stakeholders, including community-based organizations active within the target communities (*Sequoia Foundation, Brightline Defense, and Rise South City*), government stakeholders (*BAAQMD and Bay Air Center*), data analysis stakeholders (*San Jose State University, UC Berkeley and NASA USRA Researchers*), and technology partners (*Clarity Movement and OpenAQ*).

As previously stated, Sequoia Foundation, Brightline Defense, and Rise South City are awardees of the BAAQMD's James Cary Smith Community Grant Program that was designed to empower local community leaders. These BAAQMD-funded community engagement projects are synergistic with the coordination and community engagement activities of the BACAQC and have established existing air quality-focused engagement between BACAQC's Community Partners and the Communities they will be engaging as part of the proposed work.

As described in Section 2.1, the Sequoia Foundation and other project partners have other synergistic projects funded by the BAAQMD and California Department of Public Health that have facilitated ongoing engagement with other stakeholders of the proposed Bay Area Community Air Quality Collaborative, such as: Communities for a Better Environment, the Rose Foundation, West Oakland Environmental Indicators Project (WOEIP), the OUSD, County Health Departments and Cal-Fire. Early Community Engagement activities (Task 1) will focus on formally engaging these additionally aligned regional organizations with the proposed collaboration to further expand participation in the subsequent Community Air Quality Capacity Building activities (Task 2). Community Members will be engaged during the sensor network planning process (Task 3) to ensure data is responsive to community concerns. The BACAQC AQ Coordinators will maintain regular communications with the growing network of community stakeholders via opt-in mailing lists, website updates, and printed materials provided to the community at the proposed workshops (Task 1 & 2) and other related regional events, such the BAAQMD's Community Advisory Council (Task 1D).

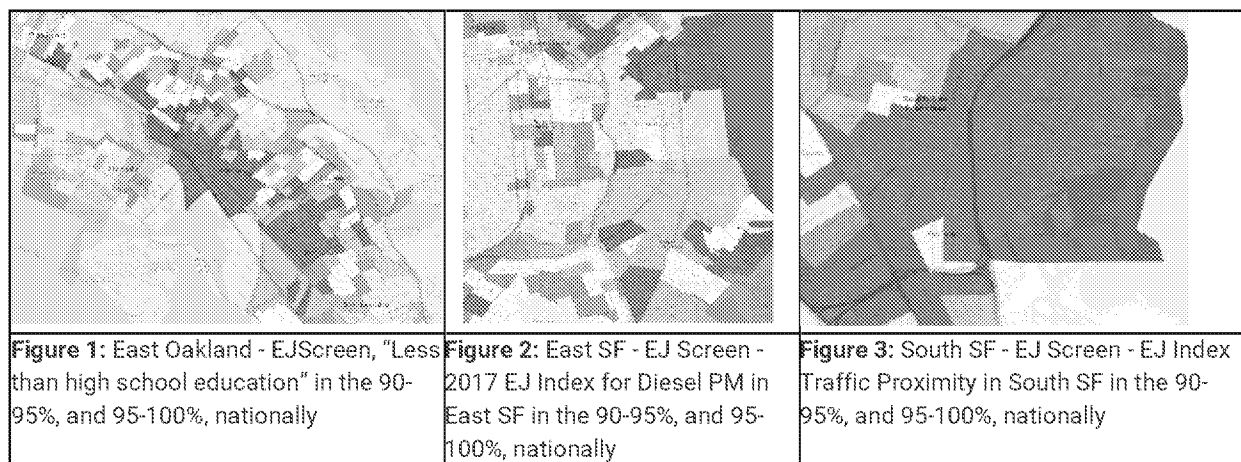
3 - Environmental Justice and Underserved Communities

The proposed combination of Community Engagement activities and Needs-Assessment Workshops (Task 1) and targeted Community-Capacity Building activities (Task 2) will enable each of the selected communities to better understand their pollution exposures and what actions can be undertaken to reduce exposures to air pollution in these disproportionately impacted communities. The deployment of air monitors to measure PM_{2.5} and NO₂ as part of community-specific air monitoring pilots in each community (Task 3) will provide community members, researchers, and policymakers with the means of providing community-specific analyses (Task 3C) and improved understanding/access to real-time air pollution data to understand their exposures (Task 3B) through easy-to-access/use web portals. The participation and input of community members has been deeply structured into Tasks 1-3 to

ensure the project outputs are consistently aligned with community-specific needs and cognizant of community-specific environmental justice challenges. Each of the three selected communities has been selected based upon their recognized need, as follows:

East Oakland: The neighborhoods of East Oakland (*the Eastern communities of Oakland, CA*) are sandwiched between the major regional freeways HW880 and HW580. Additionally, the Oakland International Airport (OAK) is located directly to the west of these communities. Most recently, East Oakland was designated as an environmental justice community under California Assembly Bill 617. Reviewing East Oakland within the U.S. EPA's EJScreen Tool shows significant portions of this community falls within the EJ Index's 95-100th percentiles for PM_{2.5} exposure nationally. Additionally, significant portions of East Oakland are identified as within the EJ Index's 95-100th percentile for "Less than high school" nationally. EJScreen similar identifies these neighborhoods as Communities of Color, including numerous areas within 95-100th percentile and 90-95th percentile nationally and as "Low-Income" neighborhoods in the 80-90th, 90-95th, and 95-100th percentiles, nationally.

Eastern San Francisco (San Francisco Tenderloin, SoMa & Bayview-Hunters Point): Brightline Defense will concentrate its air quality monitoring and data analysis in Disadvantaged Communities of South of Market (SoMa), the Tenderloin, and Bayview-Hunters Point - collectively "Eastern San Francisco" - with additional monitoring in neighboring Priority Populations in Chinatown. The SoMa neighborhood has been designated as both a CA SB535 Disadvantaged Community and an AB 1550 Low-income Community. The Tenderloin is also a Low-income Community, and it is within 1/2 mile of SoMa, a Disadvantaged Community. Significant swaths of Bayview-Hunters Point are also designated as SB 535 Disadvantaged Community and an AB 1550 Low-income Community. As illustrated by the EPA's EJScreen Tool EJ Index identifies each of these neighborhoods within the 95-100th percentiles nationally for PM_{2.5}, Diesel PM and Traffic Proximity.



South San Francisco: The City of South San Francisco is directly adjacent to HW101 (Bayshore Freeway), which is positioned between the City of San Francisco and the San Francisco International Airport (SFO). In addition to HW101, there are other regionally significant transportation infrastructure, including Caltrain, the Union Pacific railway, and highways I-280, I-380, SR 82 and SR 35 impacting the community. Reviewing South San Francisco using the U.S. EPA's EJScreen Tool identifies that a significant portion of the City falls within the EJ Index's 95-100th percentiles for PM_{2.5} exposure nationally. Likewise, significant portions of the City are identified as within the EJ Index's 95-100th percentile for Traffic Proximity, nationally. Notably, there are no regulatory monitoring sites (FEM/FRM) for

nitrogen dioxide (NO₂) located within several miles of this community, which is potentially/likely present given the significant transportation-related impacts on this community.

4 - Environmental Results – Outputs, Outcomes and Performance Measures

4.1 - Expected Project Outputs and Outcomes

Expected outputs from the proposed Tasks include: the community-specific identification and measurement of PM_{2.5} and NO₂ air pollution through the deployment of new air quality monitors (Task 3A), the provision of near real-time air quality data for the communities, public and other research/policy stakeholders (Task 3C), and the promotion of regional partnerships and community-capacity to improve understanding of air pollution and reduce exposures as a result of coordinated engagement and training activities (Task 1 & Task 2). The results of these activities will be published as community-specific case studies and as a comprehensive best practice guide (Task 4).

Project Outputs	Corresponding Outcome
Task 1A: Host (3) Regional AQ Needs-Assessment Workshops throughout the Bay Area	Improved understanding of community-specific needs pertaining to air quality awareness, concerns, education, and opportunities
Task 1A: (110) Complete Surveys / Receive Input from (100) Community Members	
Task 1B: (2 to 3) Youth Leaders Engaged and Trained	Youth Leaders can provide effective community engagement and access many audiences
Task 1C: Develop & Deploy (1) BACAQC Public Website	Central Digital Engagement and Coordination Platform, Output Repository, Dissemination
Task 1D: Attend (2) BAAQMD Community Advisory Council to share aggregated data / needs	Aggregate community-specific feedback (<i>representation</i>) and empower community participation
Task 2A: Develop & Publish (10) AQ Training Modules for Workshops	Develop effective / needed training and education materials responsive to community needs
Task 2B: Host (3) Regional AQ Training Workshops throughout the Bay Area	Community-specific opportunities to scale trainings of community members and trainers
Task 2B: (6) Community Trainers Engaged & Trained	Community Trainers can provide scalable capacity building for air quality education
Task 2C: Collect (45) Follow Up Surveys on Participants & Trainers/Results	Ensure BACAQC Training are effective and adapt/correct as needed
Task 3A: Deploy (25) Clarity Node-S Air Monitors throughout each of the three identified communities	Collect community-specific AQ data representative of community needs and concerns
Task 3B: Provide (12) BiAnnual Community-Specific Network Analysis Reports from Sensor Networks	Develop actionable, community-specific insights from collected air data
Task 3C: All (25) sensor data is made available to the public via public platforms	Maximize access and dissemination of air data for public benefit and research opportunities
Task 4A: Publish (3) case studies on community-specific sensor deployments	Facilitate shared learnings and knowledge management between communities
Task 4B: Publish (1) "Bay Area Best Practices for Community Air Monitoring Guide"	Distill best-practices and lessons learned for other communities throughout the Bay Area and beyond

4.2 - Performance Measures and Plan

The BACAQC Project Team has assigned quantifiable tracking metrics for each proposed subtask that will be reflected in each EPA Quarterly Report, as follows:

Task 1A: (X of 3) Needs Assessment Workshops Hosted

Task 1A: (X of 110) Needs Assessment Surveys Completed

Task 1A: (X of 5) Community-Organization Subcontracts Issued (Community Service Orders)

Task 1B: (X of 3) Youth Leaders Engaged & Trained

Task 1C: (X of 1) Website Deployed Live
Task 1D: (X of ~10) BAAQMD Community Advisory Council attended with structured comment
Task 2A: (X of ~10) AQ Training Workshop Modules Developed
Task 2B: (X of 3) Community AQ Training Workshops Hosted
Task 2B: (X of 6) Community Trainers Engaged & Trained
Task 2B: (X of 5) Community-Organization Subcontracts Issued (Community Service Orders)
Task 2C: (X of 45) Follow up surveys collected from Workshop Participants & Trainers
Task 3A: (X of 25) Clarity Node-S Air Monitors Deployed
Task 3B: (X of 12) Community-Specific AQ Network Analysis Reports (4 per Community)
Task 3C: (X of 25) Air sensor data available to public
Task 4A: (X of 3) Community-Specific Case Studies Published
Task 4B: (X of 1) "Bay Area Best Practices for Community Air Monitoring Guide" published

4.3 - Timeline and Milestones

Task	Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q1 2024	Q2 2024	Q3 2024	Q4 2024
Task 1A	Workshop Prep & Survey Outreach	Host (3) Needs Assessment Workshops						
Task 1B	Continuous Youth Engagement							
Task 1C	Website Design	Website Launched						
Task 1D	CAC Attendance	CAC Attendance	CAC Attendance	CAC Attendance	CAC Attendance	CAC Attendance	CAC Attendance	CAC Attendance
Task 2A			Training Module Development					
Task 2B			Workshop Prep / Outreach	Host (3) Training Workshops				
Task 2C					Follow Up Surveys of Participants & Trainers			
Task 3A	Sensor Planning & Calibration	Sensor Network Deployment & Operation		Sensor Network Continuous Operation				
Task 3B		Sensor Network Report		Sensor Network Report		Sensor Network Report		Sensor Network Report
Task 3C		Sensor Network Data Available to Public via Clarity OpenMap and OpenAQ						
Task 4A						Community-Specific Case Studies		
Task 4B							Develop Best Practices in Community Air Monitoring Guide	
EPA Reports	Quarterly Report 1	Quarterly Report 2	Quarterly Report 3	Quarterly Report 4	Quarterly Report 5	Quarterly Report 6	Quarterly Report 7 & Draft Final	Submit Final Report

5 - Quality Assurance Statement--[Attached as an Optional Attachment]

6 - Programmatic Capability and Past Performance

6.1 Past Performance

Funding Agency	Award Number	Project Title	Timeframe
CDC	1U88EH001148-01	Expanding California Biomonitoring Database Through Statewide Surveillance and Targeted Population Studies	9/1/2014 – 8/31/2019

Funding Agency	Award Number	Project Title	Timeframe
BAAQMD	2018.195	Designing an NGSS-Ready Air Quality Science Curriculum That Utilizes a Project Based Learning Approach: Phase 2	9/20/2018 – 10/19/2019
CDPH	19-10262	Support for Exposure Assessment Projects	8/1/2019 – 6/30/2021
EPA	99T98701	Environmental Justice Program – The Community is Our Classroom: SLHS Student EJ Outreach Project	10/1/2019 – 9/30/2020
BAAQMD	2019.274	Environmental Justice and Air Quality Curriculum in Schools: The Community is Our Classroom	9/20/2019 – 12/31/2020

6.2 Reporting Requirements

Funding Agency	Award Number	Reporting Requirements Outcomes
CDC	1U88EH001148-01	Performance reports addressing progress towards achieving project objectives were submitted annually concurrent with continuing applications to secure funding for the next project year. Annual Federal Financial Reports were submitted on a quarterly basis throughout the duration of the project. A final technical report which addressed the project as a whole was developed and submitted following the final project year. All reports were submitted on time and accepted by CDC.
BAAQMD	2018.195	Sequoia Foundation prepared and submitted four quarterly progress reports, with the fourth report being the final report addressing the last quarter and the project as a whole. In addition to reporting on activities, each report included fiscal updates on funds expended during the period. All reports were submitted on time and accepted by BAAQMD.
CDPH	19-10262	A Sequoia Foundation staff member was assigned onsite at CDPH and worked closely with management to keep them apprised of project status throughout its duration. A final technical report which addressed the project as a whole was developed and submitted following the final project year. The report was submitted on time and accepted by CDPH.
EPA	99T98701	Sequoia Foundation prepared and submitted semi-annual (e.g., every six months) progress reports. A final technical report which addressed the project as a whole was developed and submitted with the Annual Federal Financial Reports following the final project year. The reports were submitted on time and accepted by EPA.
BAAQMD	2019.274	Sequoia Foundation prepared and submitted four quarterly progress reports, with the fourth report being the final report addressing the last quarter and the project as a whole. All reports were submitted on time and accepted by BAAQMD.

6.3 Staff Expertise

Sequoia Foundation is a state and federally recognized non-profit founded in 1983. SF has a long history of conducting public and environmental health research, providing health education and program support, and building capacity in community-based organizations. Sequoia Foundation staff have conducted more than 30 research and public health education campaigns funded through grants and cooperative agreements with state and federal agencies, including the California Department of Public Health, CDC and US EPA. Our staff have amassed person-decades of experience in strategic planning, program management, and community education. educational tool development for state and local agencies, including schools.

Jeff Sanchez, Director of Grants and Contracts, will oversee administration of the project, develop memoranda of understandings with partners, coordinate government partners, and provide fiscal and progress reports. He has over 20 years of experience in program design, implementation, and evaluation. He currently manages local, state, and federal cooperative agreements, grants, and contracts for Sequoia Foundation.

Mario Amanzio, Program Coordinator, will oversee day-to-day administration of the project and tracking of activities and deliverables. Since 2008 he has supported a variety of statewide and local public health initiatives involving childhood and occupational lead poisoning prevention and biomonitoring. He currently serves as Program Coordinator for a CDC-funded lead poisoning prevention program. He oversees community outreach; tracks and reports project activities; develops data collection and evaluation tools; manages the budget and produces reports.

Jenica Robles, Community Engagement Coordinator, will be responsible for coordinating efforts with youth-serving agencies. She has served as Lead Health Educator for a county-wide tobacco prevention campaign, as Project Coordinator for a childhood lead poisoning prevention project where she established key program partnerships with childcare referral agencies and integrated primary prevention strategies into community outreach.

7 - Budget

Line Item & Itemized Cost	EPA Funding
Personnel	
Jeff Sanchez, Director of Grants and Contracts	\$33,488
Mario Amanzio, Program Coordinator	\$14,971
Jenica Robles, Community Engagement Coord	\$53,304
Lauren Wohl-Sanchez, Graphic Artist	\$15,056
Total Personnel	\$116,819
Fringe Benefits	
35% of total personnel	\$40,887
Travel	
Mileage for AQ Coordinator 1: 100 miles / week	\$1,200
Mileage for AQ Coordinator 2: 100 miles / week	\$1,200
Total Travel	\$2,400
Equipment	
Total Equipment	\$0
Supplies	
Outreach Materials & Supplies (Zoom, Survey Materials, Email Campaigns, Printing, etc.)	\$2,900
Total Supplies	\$2,900
Contractual	
AQ Coordinator (Brightline) - 100% FTE	\$150,000
25x Clarity Node-S air monitors (PM2.5 & NO2) with Two-Year Sensing-as-a-Service Contract [20% Discount]	\$60,000
Subcontracts for TBD Community-Based Organizations (# of Organizations)	\$12,000
Total Contractual	\$222,000
Other	
Translation Services	\$1,600
Workshop & Community Meeting Logistics for 6 Community Workshops (@ \$4,800/Workshop) [Reservations, Event Resources, PA, etc.]	\$28,000
Total Other	\$29,600
Indirect Costs	
Total Indirect	\$85,289
Total Funding	\$499,895

7.1 Reasonableness of Costs

PERSONNEL - \$116,819:
Jeff Sanchez, PMP (Director of Grants and Contracts): Mr. Sanchez will oversee administration of the project, develop memoranda of understandings with partners, and coordinate government partners. He will provide strategic direction to all project activities, manage the project budget, and serve as the point-of-contact with and provide required fiscal and progress reports to EPA. Mr. Sanchez will devote .14 FTE during year 1.
Mario Amanzio, (Program Coordinator): Mr. Amanzio will oversee day-to-day administration of the project and tracking of activities and deliverables. He will also support the Director of Grant and Contracts in fulfilling EPA reporting requirements. Mr. Amanzio will devote .08 FTE during year 1.
Jenica Robles, MPH (Community Engagement Coordinator): Ms. Robles will be responsible for coordination with community partners. She will facilitate regional air quality needs assessments and design methods to capture input from community members, and analyze responses and develop recommendations based on the community input gathered. She will coordinate youth leadership and engagement activities, develop the community trainer curriculum and public education resources, and train the community trainers. Ms. Robles will devote .34 FTE during year 1.
Lauren Wohl-Sanchez, (Graphic Artist): Ms. Wohl-Sanchez will be responsible for developing outreach and education materials and support the Community Engagement Coordinator's community engagement and trainings. She will assist in the development of tools to gather community member input on the needs assessments, and develop the BACAQC website. She will also support the development of the community trainer curriculum and assist in the trainings. Ms. Wohl-Sanchez will devote .08 FTE during year 1.
FRINGE BENEFITS - \$40,887: Fringe Benefits are budgeted at 35% and include Health and Welfare benefits, 9% 401(k) contributions, and state and federal taxes. Actual costs are charged therefore SF does not have a federally negotiated fringe benefits rate. Fringe benefits are calculated at \$20,228 for Year 1, \$20,659 for Year 2.
TRAVEL - \$2,400: Travel funds are being requested for the Community Engagement Coordinator for local travel to convene and conduct Community AQ Needs Assessments. Funds are also requested for Community Engagement Coordinator and Graphic Designer for local travel to lead Community AQ Capacity Building Workshops. The mileage rate is based on the 2022 IRS reimbursement rate of .585 cents per mile.
SUPPLIES: \$2,900: Supplies are being requested for survey tools and materials, email campaigns, and printing. This line item will also support costs associated with domain and hosting for the Hub website. Supply funds are being estimated at \$1,450 in both Years 1 and 2 to a total of \$2,900.
CONTRACTUAL - \$222,000:
Clarity Air Monitors: 25x Clarity Node-S air monitors (PM2.5 & NO2) with Two-Year Sensing-as-a-Service Contract (with 20% Community Discount). Clarity will be paid \$30,000 for Years 1 and 2 to total \$60,000.
Brightline Defense: Brightline will be responsible for maintaining a 18-sensor network from 2022-2024 in Eastern San Francisco and will also be responsible for regional community engagement and community air quality capacity building in Eastern SF. Brightline will be paid \$75,000 in Years 1 and 2 to total \$150,000.
CBOs: Rise South City, and other partner organizations, will promote the workshops within their communities and recruit participants. Funds are being requested in the amount of \$12,000 for CBO Partner Organizations in Year 1.
OTHER - \$29,600:
Translation: Translation of education materials as well as translation services are being estimated at \$800 in Years 1 and 2 to a total of \$1,600.
Workshops: Funds are being requested for 6 Community AQ Needs-Assessment and Community AQ Capacity Building Workshops. We're requesting a total of \$28,000 for the Workshops, which include facility and equipment rental, live translation services, and other services that may be deemed necessary to encourage community participation (e.g., onsite childcare).
INDIRECT COSTS - \$85,289: Sequoia Foundation (SF) has a 32.50% provisional indirect rate approved by the Department of Health and Human Services. However, SF has agreed to a reduced rate of 28% indirect. The indirect cost base excludes capital expenditures, the portion of each subaward in excess of \$25,000. Indirect costs are calculated at \$44,092 in Year 1 and \$41,197 in Year 2.

7.2 Expenditure of Awarded Funds

Sequoia Foundation has a strong administrative and grant management infrastructure. Monthly meetings with program staff will occur to review the budget in relation to the project's timeline and status of deliverables. Every month, the Director of Grants and Contracts will review expenditures to ensure that funds are used appropriately and that progress towards outcomes is consistent with spending. Concerns with project implementation will be addressed immediately.

Existing project synergies already existing as a result of a California Air Resources Board (CARB) Community Air Grant by which Brightline Defense, Clarity Movement and the Bay Area Air Quality Management District have been continually engaged for the past two years around sensor deployments, correction factor development/application and testing of the BAAQMD's Sensor Verification System.

QA/QC Team:

The Clarity Movement Project Team includes: Dr. Meiling Gao (Chief Operating Officer), who has extensive experience managing low-cost network sensors across the world.

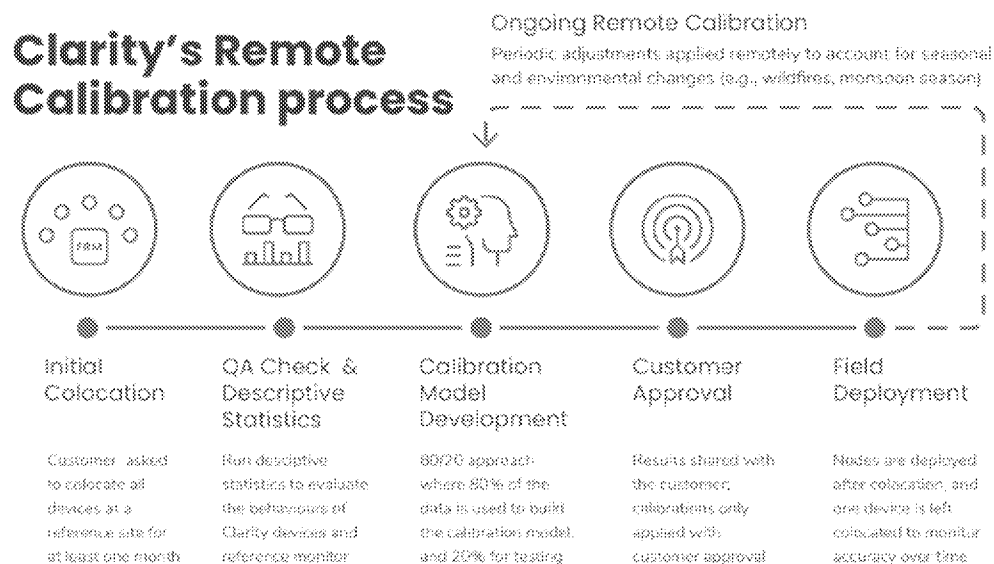
Katie Moore, MPH (Environmental Project Manager), has supported management of large and small-scale air quality networks with a focus on environmental justice and community-led monitoring efforts.

Levi Stanton (Lead Solutions Engineer) has demonstrated expertise developing robust calibration methodologies and has led numerous projects funded by the U.S. Environmental Protection Agency using low-cost sensors across the world.

Additionally, the Bay Area Air Quality Management District (BAAQMD) and BAAQMD Bay Air Center have committed support to additional sensor network quality assurance support.

Colocation and Clarity's Remote Calibration Process

The Clarity team works with each project to develop a colocation and calibration plan to fit the team's goals and resources. Clarity's Remote Calibration Process allows for calibration models to be updated with additional data and applied to the raw data in real-time. The raw data for all Clarity Nodes is always retained and available in the Clarity Dashboard and API.



Jeffrey Sanchez, PMP
Program Director / Director of Grants and Contracts

EMPLOYMENT HISTORY

Director of Grants and Contracts (01/02/2014 to present)

Impact Assessment, Inc.

Chief, Health Information Systems Section (10/01/1997 to 06/30/2014)

Impact Assessment, Inc./Sequoia Foundation

Childhood Lead Poisoning Prevention Branch

ROLES AND RESPONSIBILITIES

Principal Investigator for the City of Los Angeles CDC Childhood Lead Poisoning Prevention CDC Grant CDC-1H64-EH001261-Sanchez (PI) (09/30/14-Present)

Program Manager overseeing all program areas. Responsibilities include:

- Conduct strategic and fiscal planning with Program Coordinator to design program objectives and annual budgets
- Provide program oversight of funded staff, and coordinate with local partner organizations, sub-contractors, and local government organizations for grant activities
- Review and approve federal grant required reports and attend CDC annual grantee status and strategic planning meetings
- Provide technical assistance on healthy housing strategies

Program management for Health Information Systems within California's Childhood Lead Poisoning Prevention Branch (10/01/1997 to 06/30/2014)

Serving as Program Manager overseeing all program areas. Responsibilities include:

- Conducted strategic and fiscal planning for statewide health informatics and data quality management initiatives
- Provided program oversight of program staff, and coordinate with local lead poisoning prevention programs to carry out data management activities
- Developed work plans, evaluation metrics, and schedules for grant and contract funds to carry out program activities

EDUCATION

- California State University, Hayward, California: Bachelor of Arts in Environmental Studies with Minor in Biological Sciences, 1994
- Project Management Institute: Project Management Professional (PMP) certification, 2012

SKILLS AND KNOWLEDGE BASE

- Over 15 years of experience providing consultation to local, state, and federal partners on systems lifecycle relevant for public health arenas, data standards, project management, and data sharing concepts across multidisciplinary medical and public health programs
- In depth knowledge of gathering and analyzing business requirements to determine programmatic solutions for large statewide and local public health programs
- Comprehensive knowledge of MS-Visio, MS-Project, and MS Office 365

Mario Amanzio

Program Coordinator

Employment History

Program Coordinator (October 2014 to Present)

Impact Assessment, Inc., Berkeley, California

Coordination for the CDC-funded City and County of Los Angeles Lead Poisoning Prevention Programs

Serving as the Program Coordinator overseeing all program activities, including:

- Designing, implementing, and monitoring program initiatives; overseeing staff carrying out these initiatives.
- Leading project status meetings with staff, monitoring and tracking project activities, and reporting progress to program management.
- Preparing progress reports, continuing applications, and other required reporting to CDC.
- Developing and maintaining budgets.
- Assisting in the development of the program evaluation plan, design of evaluation data collection tools, and analysis of evaluation data.

Project Coordinator (August 2015 to December 2016)

Sequoia Foundation, La Jolla, California

Contractor to the California Department of Public Health, Environmental Health Investigations Branch, Richmond, California

Recruited Newborn Screening Programs and State Public Health Laboratories for participation in a national Cystic Fibrosis survey

Served as the Project Coordinator to enlist Newborn Screening Programs across the country to provide newborn screening data. Activities included:

- Conducted outreach to Newborn Screening Programs, State Public Health Laboratories, universities, and consortium members to enroll and facilitate participation in the survey.
- Provided support to key program/laboratory staff to facilitate the collection of data.
- Assisted in the development of institutional review board (IRB) exemption requests and formal data requests.
- Reviewed data collection surveys and followed up with programs when clarification or correction was needed; entered individual state program data into data aggregation tool.
- Tracked contacts, participation status, and data provided for all 50 states and communicated progress to the Principal Investigator.
- Assisted in the development of progress reports to the funder.

Research Associate IV (January 2008 to June 2014)

Impact Assessment, Inc., La Jolla, California

Contractor to the California Department of Public Health, Childhood Lead Poisoning Prevention Branch, Richmond, California

Enforced laboratory blood lead reporting requirements to the State of California

Coordinated the Childhood Lead Poisoning Prevention Branch enforcement of blood lead reporting requirements to laboratories across the nation. Activities included:

- Designed, documented, implemented, and maintained a statewide plan for conducting laboratory reporting compliance audits.
- Provided ongoing monitoring of laboratory reporting for non-compliance, which included communicating with and providing training to laboratories found to be out of compliance.
- Communicated electronic reporting requirements to laboratories new to blood lead testing, brought laboratories onboard for electronic reporting, and provided training to laboratory staff.
- Co-authored the Childhood Lead Poisoning Prevention Branch Surveillance and Data Management Manual, which established policies and procedures on data access, data sharing and ownership, data security and confidentiality, and records retention for county health departments.

Certification and Training

Certificate of Competency in Business Analysis (CCBA)

International Institute for Business Analysis

Effective January 2015 to January 2018

CDC National Healthy Homes and Lead Poisoning Prevention Training Center: Program Management, Surveillance, and Strategic Planning Track

Centers for Disease Control and Prevention

March 2015

Education

Bachelor of Science in Business Administration: Concentration in Accounting

San Francisco State University, San Francisco, California

December 2007

JENICA J. ROBLES, MPH

Professional Summary

Experienced Public Health professional with expertise in project coordination, program development and implementation, health education, community engagement, grant writing, event coordination, social media management and website design. Bilingual English/Spanish.

Work Experience

Community Engagement Coordinator, 02/2021-Present

Impact Assessment, Inc.

Coordinate, develop and implement community engagement project on childhood lead poisoning. Establish key program partnerships with childcare resource and referral agencies. Integrate primary prevention strategies for outreach and education materials for community dissemination. Establish a taskforce with childcare professionals to craft health education messages and promote cultural competency. Maintain relationships with existing program partners to coordinate service referrals. Document project activities, protocols and status. Support staff on other project activities.

Project Coordinator, 10/2016-04/2018

Health Center Partners, San Diego, CA.

Coordinated project activities on various grant funded health projects. Delivered presentations and trained grantees on behavioral health and primary care integration. Facilitated meetings and provided technical assistance to community health workers. Designed and developed educational materials for Federally Qualified Health Centers. Collected and analyzed data to monitor project outcomes and deliverables, wrote year end reports and presented statistical findings. Planned, coordinated and implemented annual conferences. Provided project updates at countywide Behavioral Health Taskforce meetings. Wrote provider contracts, updated program budgets, prepared evaluation tools and managed project websites.

Lead Health Educator, 03/2014-06/2016

Community Service Programs Inc., Santa Ana, CA.

Designed and implemented the tobacco prevention program and delivered health education workshops. Developed evaluation tools to measure project objectives. Conducted in-depth formative research and hosted focus groups to inform the development of the project and behavior change theories using evidence-based research and best practices. Designed, developed and disseminated educational materials, flyers, and toolkits in accordance with health literacy principles. Recruited program partners and nurtured key relationships with site directors. Established a taskforce among participants to implement smoke-free policies. Attended community outreach events to spread awareness on tobacco prevention and recruit participants for tobacco cessation. Set-up large scale media and advertisements in project areas. Managed project budget and wrote monthly status reports. Managed project website and social media sites. Served on the Orange County Tobacco Education Coalition as Social Media Chair.

Education

Master of Public Health: Global Health, 2009. Loma Linda University.

Bachelor of Arts: Anthropology, 2004. University of California, Irvine.

Eddie Hongil Ahn, Esq.

Ex. 6 Personal Privacy (PP)

EDUCATION

University of California, Hastings College of the Law, *Juris Doctor*, 2009 (CA Bar Certified)

Brown University, *Bachelor of Arts*, 2005

SUMMARY

12+ years experience as legal and policy advocate in energy, climate policy, frontline communities, and more. Currently serving as a commissioner for three environmental government agencies and board member for two additional nonprofits in environmental justice and land use.

EXPERIENCE

Brightline Defense, *Executive Director*, San Francisco, 2015-present

- Led a legal and public policy nonprofit dedicated to environmental justice issues and convened diverse coalitions of over 100 leaders from over 70 community groups, labor unions, private companies, think tanks, and government to develop environmental and job strategies.
- Advocated in government hearings, assembled coalitions, and spoke in press interviews and conferences for multiple environmental issues, with a particular focus on solar, energy efficiency, building de-carbonization, and zero-emissions vehicles as issues.
- Created San Francisco's first citywide air quality monitoring program localized by neighborhood, working with 3 nonprofit and private sector organizations as well as the California Air Resources Board (CARB), the Bay Area Air Quality Management District (BAAQMD), and over 6 local city agencies.
- Cultivated national networks to further policies at the federal, state, and local levels while delivering speeches and policies in Delaware, Tennessee, and New Jersey as well participating in statewide panels about the intersection of workforce and the environment for the California Public Utilities Commission and California Energy Commission.
- Shaped workforce development and local hiring practices with Brightline as a member organization of the Job Training Organization (JTO) Taskforce for the Solar on Multifamily Affordable Housing (SOMAH) program, which provides financial incentives for installing photovoltaic (PV) energy systems on multifamily affordable housing in California.
- Managed lawyers, policy staff, media consultants, subcontractors, and volunteers around multiple policy campaigns on clean energy and workforce development programs.

Metropolitan Transportation Commission (MTC), *Commissioner*, Bay Area, June 2020-present

- Appointed to MTC, the region's financing and planning agency for transit infrastructure, including streets, roads, two dozen public transit systems, and airports for the 9 Bay Area counties and 101 cities.
- Worked with MTC staff and other commissioners on issues ranging from shaping the region's GHG and housing goals to allocating over \$1.5 billion in emergency funding to cash-strapped Bay Area local transit agencies during the pandemic.
- Serving on Operations, Joint Planning, and Legislation Committees.

Bay Conservation and Development Commission (BCDC), *Commissioner*, Bay Area, April 2018-present

- Appointed by the California Assembly Speaker to BCDC, the planning and regulatory agency with regional authority over the San Francisco Bay shoreline. BCDC has shaped and approved major shoreline projects worth billions of dollars.
- Evaluated statutory standards, contract law, and litigation issues as a decision maker in determining major development projects in the Bay Area.
- Worked collaboratively to further progress on environmental and equity issues with other regional and state entities, including the Bay Area Air Quality Management District (BAAQMD), Metropolitan

Transportation Commission (MTC), Association of Bay Area Governments (ABAG), CA State Lands Commission, and CA Coastal Commission.

- Successfully passed the Environmental Justice Amendment to the Bay Plan in November 2019.
- Serving as Chair of the Environmental Justice Working Group of the Commission, which incorporates environmental justice and equity issues in the Bay Plan and improves public access to the Bay.

San Francisco Commission on the Environment, *Commissioner*, San Francisco, October 2017-present

- Appointed by the Mayor to a charter commission that sets policy for the SF Department of Environment and advises the Mayor and Board of Supervisors on environmental matters.
- Employing approximately 100 staffers, the SF Department of Environment implements seven programs that create a strong clean energy economy and promote sustainability in power, transportation, building, waste management, jobs, and beyond.
- Elected as Vice President of the Commission and served as Chair of the Policy Committee of the Commission.
- Past Member of the Operations Committee of the Commission, which manages a large grantee portfolio as well as the Department's annual budget, public education, and community outreach.
- Worked with the Mayor's Office, the Department, and other government staff on a broad range of issues, such as public transit electrification, the Department's racial equity initiative, federal environmental protections, and the Governor's Global Climate Action Summit (GCAS).

Asian Pacific Environmental Network (APEN), Board Member, Oakland, 2019-present

- Appointed to the Board of Directors for APEN, an environmental justice organization with deep roots in California's Asian immigrant and refugee communities since 1993.
- Oversaw the strategic direction, budget, guidelines and policies of APEN.

Mission Housing Development Corporation, Board Member, San Francisco, 2016-present

- Appointed to the Board of Directors for Mission Housing, a large nonprofit housing developer that manages 35 buildings and houses over 3,000 residents in San Francisco.
- Oversaw the strategic direction, budget, guidelines and policies of Mission Housing.

Brightline Defense, *Policy Counsel*, San Francisco, 2009 –2015

- Drafted and filed comments for administrative law proceedings by state environmental agencies.
- Developed environmental strategies and workforce systems that have been adopted by California and New Jersey to increase employment outcomes for clean economy projects.
- Advocated to successfully implement progressive workforce policies, develop metrics for success, as well as increase local funding for solar installations and workforce development.
- Crafted workforce development policies and advised cities on federal constitutional law across the country, including Denver, Baltimore, Seattle, Providence, and Newark.

Assembly Judiciary Committee, *Clinical Intern*, Sacramento, 2009

- Drafted statutory language with government staff and interest groups on environmental issues.
- Wrote bill analyses on equity-related legal issues, such as clarifying civil procedure in the California Environmental Quality Act (CEQA) and limiting credit checks for employment purposes.

Oakland Asian Students Educational Services, *Afterschool Programmer*, Oakland, 2005 – 2008

- Managed a team of 5-6 volunteers from UC Berkeley in arts and public speaking workshops for low-income youth in Oakland's Chinatown.
- Worked both as an AmeriCorps member and part-time employee during law school.

OTHER BOARD APPOINTMENTS AND SKILLS

Former SF Citizen's Committee on Community Development Member (federal funding on community development and social services), Conversational Korean

Cecilia Mejia

Ex. 6 Personal Privacy (PP)

EXPERIENCE

Program Coordinator

April 2021 - Present

Brightline Defense | San Francisco, CA

- Coordinate, implement, and monitor programs with diverse community and government stakeholders to meet desired outcomes.
- Conduct policy research and support grant writing projects as needed.
- Ensure database maintenance for environmental and workforce development programs.
- Organize and establish calls and meetings on a regular basis with partners to discuss program progress, and resolve any implementation issues.

Hiring and Training Coordinator

Jan. 2021 - Present

University of California, Berkeley | Berkeley, CA

- Manages and updates several databases of 140+ student staff members and 30+ professional staff members.
- Collaborates with several campus partners in evaluating and analyzing potential employment and training strategies.
- Presents over zoom weekly and facilitates several breakout and debrief sessions for candidates and interviewers.

Earth Week Associate

Jan. 2021 - May 2021

Student Environmental Resource Center | Berkeley, CA

- Solely manages a week-long environmental conference, Earth Week, for the entire UC Berkeley campus.
- Outreaches to local businesses and environmental activists to collaborate on virtual workshops, events and panels.
- Creates intentional environmental events and workshops by including race, gender, etc into my planning process.

Senior Resident Assistant

Aug. 2018 - May 2021

University of California, Berkeley | Berkeley, CA

- Manages all programming development with multiple timelines for Blackwell Hall to serve a height of 750+ residents.
- Directly influences the growth of the existing student base by developing strong relationships with peers, our student government organization called Hall Association, and cultivating domestic and international student retention.
- Significantly increased student engagement by supervising resident assistants in multiple unit-wide events catered to all of the resident population as well as approving budgeting and drafting funding requests.

Team Advisor

May 2018 - Aug. 2018 & May 2019 - Aug. 2019

National Student Leadership Conference | New Haven, CT

- Presented original environmental workshops and teaching sessions to a group of 20+ high school students at Yale.
- Spearheaded a sustainability workshop for peers on how to properly recycle workbooks, binders and other materials.
- Contacted and invited local businesses and chapters, like the Sierra Club, to events and panels for our program.

EDUCATION

University of California, Berkeley | Bachelor of Science in Conservation and Resource Studies

May 2021

- GPA: 3.7/4.0
- *Outreach Chair*, ReUSE; *External Communications Associate*, Associated Students of the University of California

SKILLS

Adobe Photoshop | Airtable | Smartsheet | Microsoft Word & Excel | Notion | Basic French | Fluent Spanish | Canva

Sean Wihera

Ex. 6 Personal Privacy (PP)

Vice President, Business Development & Partnerships

- Lead for global business development and B2G/B2B sales at Clarity Movement from pre-revenue (2016) through Series A+ funding with \$**M+ ARR (2022) with contracts in >65 countries, including 100% YoY ARR growth in 2021
- Managed the Lawrence Berkeley National Lab (LBNL) Energy Technologies Area's California Energy Commission (CEC) Proposal Development Program in 2016 representing \$24M+ in Research and Development funding and a 23% funding increase over 2015. (*#1 California Energy Commission R&D Awardee in State of California*)
- Experienced entrepreneurial mentor with focus on sensors, energy, and environmental solutions. Founder of U.S. Department of Energy (DOE) Berkeley Cleantech University Prize (CUP). National Science Foundation (NSF) iCorps Industrial Mentor. Selection Judge and Guest Coach for Cleantech-to-Market (C2M) at the UC Berkeley Haas School of Business.

Key Skills

- Business Development & Sales (B2G & B2B)
- Proposal Management
- Startup & Entrepreneurial Mentoring
- Channel & Partnership Management
- Program Management
- Strategy Development

Professional Experience

CLARITY MOVEMENT CO.

(Berkeley, CA)

Providing next-generation air quality management solutions to government and industrial clients around the world

Vice President, Business Development and Partnerships, 1/2022 to Present

Director of Business Development, 4/2017 to 12/2021

- Lead for global business development and B2G/B2B sales of Clarity's novel IoT-integrated "Sensing-as-a-Service" (SaaS) air quality management solution from pre-revenue/deployment (2017), through Series A funding (2020), to present. Clarity's solutions are now deployed in 65+ countries, across 6 continents (*as of March 2022*).
- Successfully developed and launched Global Partner Program of distributors, VARs and resellers. Actively managing 10+ revenue-generating Partners (*as of November 2021*)
- Proposal Lead for key strategic bids, including: Greater London Authority, City of Paris and Asian Development Bank

LAWRENCE BERKELEY NATIONAL LABORATORY (LBNL) - ENERGY TECHNOLOGIES AREA (ETA)

(Berkeley, CA)

U.S. Department of Energy's (DOE) Premier National Laboratory

Program Manager, Program and Business Development, 5/2016 to 4/2017

Selected Accomplishments:

- Managed the LBNL Energy Technologies Area's California Energy Commission (CEC) Proposal Development Program to win ~\$24M+ of research and development funding program - a 23% funding increase over 2015. (*#1 CEC R&D Funding Awardee in State of California*)
- Successfully managed 30+ California Energy Commission (CEC) Proposal Teams to a successful submission from 2016-17 with >60% award success rate.
- Led training programs and supports proposal teams in partnership and business development activities. Supports development of Lab Directorate Strategic Initiatives (\$10M - \$100M+).
- Formalized Proposal Development Program for California Energy Commission's Public Interest Energy Research (PIER) R&D Funding.

BERKELEY ENERGY AND CLIMATE INSTITUTE (BECI)
(Berkeley, CA)

UC Berkeley's multidisciplinary coordinating hub for research and innovation on energy and climate.

Analyst / Program Director, 8/2013 to 5/2016

Launched Institute with Executive Director as sole employee in Q3 2013 and grew Institute to ~15 employees by end of Q2 2016. Developed the Institute's industrial and academic partnership strategies, financial sustainment models and proposals; including two cleantech incubation/acceleration programs.

Selected Accomplishments:

- Founder & Program Director of Department of Energy (DOE) Berkeley Cleantech University Prize (CUP). Lead Author/Coordinator of successful program proposal to U.S. DOE. Led development and execution of 16-week program operational structure, partnerships, applications, selection metrics, mentor network and advisory board.
- Co-Founded the BECI Energy and Climate Challenge - a UC Berkeley cleantech startup acceleration award program *(in collaboration with the Foundry@CITRIS)*.
- Managed both solicited and unsolicited fundraising activities, examples successes include: Bi-National Laboratory on Smart Sustainable Energy Management and Technology Training (\$1.5M), Google Corporate Membership (\$250K), and FlexTech Alliance RFP (\$300K).

CENTER FOR INFORMATION TECHNOLOGY RESEARCH IN THE INTEREST OF SOCIETY (CITRIS)
(Berkeley, CA)

Multi-campus UC research institute creating information technology solutions for society's most challenging problems.

Manager, Special Projects, 10/2012 to 8/2013

Junior Specialist, 4/2012 to 10/2012

- Provided proposal development support to the four CITRIS Initiative Directors. Example funding agencies included: National Science Foundation (NSF), Department of Energy (DOE), Advanced Research Project Agency-Energy (ARPA-E), Department of Defense (DOD), and the California Energy Commission (CEC).

Additional Accomplishments

- **Invited Speaker / Panelist:**
 - 2022 Integrated Programme for Better Air Quality in Asia, *"Meeting air quality monitoring technology needs"*
 - 2021 London Climate Action Week, Climate Innovation Forum, *"Breathing Space"* (London, England & Digital)
 - 2020 Asian Development Bank (ADB) Knowledge Event: *"Innovative Technologies for Air Quality Management"* (Manila, Philippines)
 - 2019 CITRIS Research Exchange: *"Sensor Networks for Next-Generation Air Quality Management"* (Berkeley, California)
 - 2018 Asia Pacific Clean Air Partnership Joint Forum (UN Environment): *"Innovating financing and regulatory frameworks for improving air quality"* (Bangkok, Thailand),
 - 2018 CleanTech Forum Asia: "Smart" Innovation Showcase (Singapore, Singapore)
 - 2018 Better Air Quality (BAQ) Conference: Air Sensors – The State of the Technology (Kuching, Malaysia)
- **Entrepreneurial Mentor:** Nation Science Foundation (NSF) Innovation Corp (iCorps) (2016, 2019)
- **Team Selection Judge and Guest Coach:** UC Berkeley Cleantech-to-Market (C2M) (2015, 2016)

Education

UNIVERSITY OF CALIFORNIA LOS ANGELES (UCLA) - Los Angeles, CA
B.A. Political Science 12/2009